

NOISE ELEMENT OF THE REDDING GENERAL PLAN (1980 - 2000)



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VOLUME VIII

**ADOPTED BY THE CITY COUNCIL
ON JUNE 17, 1985 PURSUANT
TO RESOLUTION NO. 85-118**

PREPARED BY *Jim P. King*

DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT

MAY 1985

RECEIVED

RESOLUTION NO. 85-118

JUN 20 1985

DEPARTMENT OF PLANNING

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDDING
AMENDING THE GENERAL PLAN OF THE CITY OF REDDING BY ADOPTING
A NEW NOISE ELEMENT.

WHEREAS, following the required public hearings therefor,
the Planning Commission of the City of Redding has recommended to
the City Council that the Noise Element of the City's General
Plan be amended by adopting a new Noise Element; and

WHEREAS, following the required notices in accordance with
law, the City Council has held public hearings on said recommen-
dations and has carefully considered the evidence at said hear-
ings;

NOW, THEREFORE, BE IT RESOLVED as follows:

1. The City Council has reviewed and approved the Negative
Declaration on the plan, finding that there was no significant
impact on the environment.

2. The City Council does hereby delete the existing Noise
Element of the General Plan of the City of Redding and adopt the
new Noise Element as shown in Exhibit "A" attached hereto.

I HEREBY CERTIFY that the foregoing resolution was intro-
duced and read at a regular meeting of the City Council of the
City of Redding on the 17th day of June , 1985, and

was duly adopted at said meeting by the following vote:

AYES:	COUNCIL MEMBERS:	Fulton, Gard, & Pugh
NOES:	COUNCIL MEMBERS:	None
ABSENT:	COUNCIL MEMBERS:	Demsher & Kirkpatrick
ABSTAIN:	COUNCIL MEMBERS:	None

/s/ Barbara Allen Gard
BARBARA ALLEN GARD, Vice Mayor
City of Redding

ATTEST:

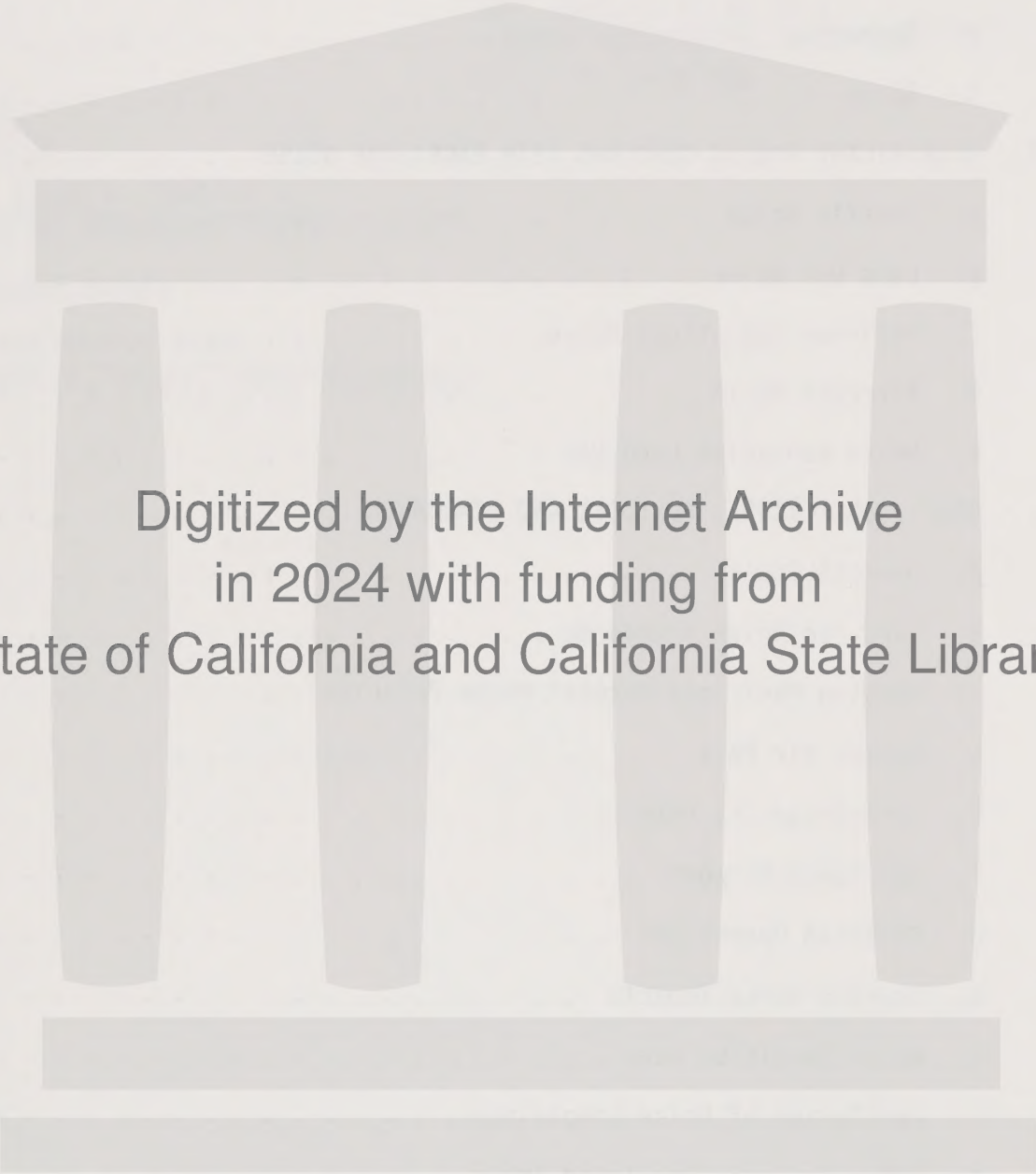
/s/ Ethel A. Nichols
ETHEL A. NICHOLS, City Clerk

FORM APPROVED:

/s/ Randall A. Hays
RANDALL A. HAYS, City Attorney

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
A. Purpose	1
B. Authority	1
C. Scope	1
II. SIGNIFICANT PUBLIC CONCERNS WITH EXCESSIVE NOISE	2
A. Traffic Noise	2
B. Land Use Noise	2
C. Railroad Operations Noise	3
D. Aircraft Noise	3
E. Noise Sensitive Land Use	3
III. GOALS, OBJECTIVES, POLICIES AND STANDARDS	4
A. Overall Goals	4
B. Land Use Noise Standards	5
C. Redding Municipal Airport Noise Policies	7
D. Benton Air Park	9
E. Enterprise Sky Park	9
F. Sky Ranch Airport	9
G. Railroad Operations	9
H. Traffic Noise Impacts	9
I. Noise Sensitive Uses	10
J. Resolution of Noise Complaints	11
K. Noise Impacted Developed Areas	11
L. Industrial Noise Complaints.	11
IV. RECOMMENDED ACTIONS THE CITY SHOULD TAKE	12
V. TECHNICAL APPENDIX TO NOISE ELEMENT, PAGES 1-92 (BOUND SEPARATELY). .	



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I. INTRODUCTION

A. PURPOSE

The purpose of the Noise Element of the Redding General Plan is to provide a basis for comprehensive local programs to control and abate excessive noise levels, and to protect people from excessive noise exposure. The Noise Element is a guideline for use in the administration of the "Land Use Element" to achieve compatible land use and also to provide base line levels of noise for local noise enforcement.

B. AUTHORITY

The Noise Element was prepared pursuant to Section 65302(g) of the Government Code and the "General Plan Noise Element Guidelines," prepared by the State Office of Planning and Research. The Noise Element was also prepared in accordance with the Airport Noise Standards of California outlined in the California Administrative Code, Title 21 and the Noise Insulation Standards of California Administrative Code, Title 24.

C. SCOPE

Of all the nine State-mandated general plan elements, the scope of the Noise Element, as set forth by the Government Code, is the most specific in content and method of preparation. To make the Noise Element readable, the analysis, noise data and noise studies have been separated, consolidated and placed in the appendix of the Noise Element. The Noise Element itself specifies goals, objectives and standards to be implemented through zoning and other land-use control tools. The Appendix of the Noise Element includes an environmental noise analysis of the following:

1. Highways and freeways.
2. Primary arterials and major local streets.
3. Passenger and freight on-line railroad operations and ground rapid-transit systems.
4. Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operations.
5. Local industrial plants including, but not limited to, railroad classification yards.
6. Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

The Appendix of the Noise Element also includes a community noise exposure inventory, which identifies the degree to which people are exposed to excessive levels of noise throughout the community. In addition, the Appendix recommends measures and possible solutions to mitigate existing and foreseeable noise problems.

II. SIGNIFICANT PUBLIC CONCERNS WITH EXCESSIVE NOISE

The following significant public concerns with noise are based on noise studies in the Appendix.

A. TRAFFIC NOISE

1. The traffic volumes on many major four-lane streets in Redding will double in the next 20 years. This, in turn, will cause noise levels for residential areas abutting these streets to exceed the recommended exterior sound level standard of 60 CNEL.
2. The current Police Department vehicle-noise-abatement program does not utilize a noise meter for noise violations. This program should be evaluated in terms of its effectiveness.
3. Noise barriers and site-design criteria have been aimed at either screening the noise source for psychological benefits or only reducing the noise from automobile traffic and not truck traffic.

B. LAND USE NOISE

In reviewing past history of the City's efforts at reducing excessive land-use noise levels through development controls, it appears that the City could play a much more significant role. The following summarizes the major areas of concern:

1. Noise mitigations have only been imposed on projects that require a use permit, parcel map or subdivision map. This results in inconsistent wall and fence design, and lessens the effect of well-designed sound walls unless they are wrapped around the project.
2. Property owners have constructed block-wall-noise barriers that do very little in reducing noise impact because they are not properly constructed or because they do not extend high enough to block out the line of sight of the noise source.
3. A great deal of money could be saved in future noise-wall construction if site-design considerations were incorporated into projects at the construction phase (e.g., using continuous garage walls as a noise wall).
4. Noise complaints from residents near commercial and industrial uses are increasing in number as the City urbanizes.
5. For 1981-82, the Redding Police Department investigated 3,500 noise complaints, most of which originated at night from within residential neighborhoods.
6. The Police Department does not have an efficient code enforcement procedure for quickly dealing with noise complaints.

C. RAILROAD OPERATIONS NOISE

1. Noise contours for specific projects are not always field checked with a noise monitor at the time actual railroad operations are occurring.
2. Noise-mitigation standards for railroad operations have not be adopted by the City.

D. AIRCRAFT NOISE

1. The noise impact of air traffic associated with Benton Air Park on Shasta High School should be evaluated to see if flight patterns can be modified.
2. 1982 noise contours for the Redding Municipal Airport show that 2 churches, 59 single-family dwellings and 15 mobilehomes are within the 65 CNEL contour. This is currently not a significant noise problem, but it could result in noise complaints and affect future FAA funding for Airport expansion.
3. The City has applied for grant funds from FAA to acquire noise impacted properties; but according to FAA officials, Redding is low on their priority list.
4. The City has not adopted guidelines or building standards to assist residential developers in dealing with noise from aircraft.

E. NOISE SENSITIVE LAND USE

1. The noise impact on Shasta High School from overhead aircraft traffic associated with Benton Air Park should be evaluated to see if any modifications in air-traffic patterns can be made to reduce the noise levels.
2. A 15-foot-high earth berm may be needed to lessen the existing and projected I-5 noise levels for Parsons Junior High, Rother Elementary and Grace Baptist Schools.
3. Traffic-noise-level impacts on Cypress Elementary, Live Oak and Enterprise High Schools, and Shasta Convalescent Hospital probably can only be mitigated by building insulation, and window and door reorientation.

III. GOALS, OBJECTIVES, POLICIES AND STANDARDS

Compared to other urban communities, Redding's overall noise environment is quieter; but by the year 2000, it is anticipated that the average daily traffic volume on almost all major four-lane streets throughout the plan area will more than double. This, in effect, will cause existing noise levels along these street corridors to be one-half to one times louder. Unless noise mitigations are built into new residential projects as they develop, the deferred cost of noise mitigations may be beyond affordability.

Other sources of noise-level increases that are anticipated will result from increased human activity. For example, it is believed that by the year 2000 the population will more than double, which means that there will be twice as much residential urban activity including loud stereos, lawn mowers, and home operation of power tools. Noise levels from industrial and commercial land use will also intensify and add to the overall noise level of the community.

These anticipated conditions can only be dealt with through a comprehensive noise element that is based on realistic goal policies, objectives and standards and action programs of implementation.

A. OVERALL GOALS

In anticipation of increased urban noise levels, the goals of the Noise Element are to:

1. Anticipate noise problems before they occur and mitigate them as the community urbanizes.
2. Educate the public through the planning process about the adverse characteristics of noise so that they will understand the need to avoid excessive noise.
3. Adopt attainable and enforceable land-use noise policies and standards that reflect what the community wants.
4. Assist property owners in noise mitigation by identifying economical, efficient, and esthetically pleasing ways of meeting City, State and Federal noise standards.
5. Safeguard the two public airports from intrusion by uses that limit the expansion of air service to the Northern California region by recognizing the vital service provided by these airports and the need to maintain a level of operations necessary to satisfy existing and future aviation requirements of the user communities.
6. Permit persons who live, work, and own property in or near high airport noise areas to enjoy a maximum amount of freedom from noise without compromising the functions of the airports.
7. Lessen the noise impact of railroad operations on nearby residential areas through land-use planning and noise mitigations.

8. Highway noise to be controlled and prevented through combinations of site/route location and design, land-use controls, building-insulation requirements, screening measures and speed limits.
9. Provide necessary policy statements so that property owners and developers may reasonably predict community-development decisions.
10. Establish quiet noise zones in the form of comprehensive noise ordinances for noise sensitive uses such as hospitals, schools, and rest homes.

B. OBJECTIVE: LAND USE NOISE STANDARDS

Adopt noise standards that are reasonable to attain and reflect what the community wants and meet all State and Federal requirements.

1. Exterior Land Use Noise Standards

- a. Adopt the land-use noise standards in the table below along with the land-use criteria.

TABLE 1

MAXIMUM RECOMMENDED LAND-USE NOISE STANDARDS

Land-Use Category	CNEL	Day Leq (7am -10pm)	Night Leq (10pm-7am)
Single Family Zoning District	60	60	50
Multiple Family Zoning District	60	60	50
All Commercial Zoning Districts	65	65	55
All Industrial Zoning Districts	70	70	60

2. Criteria for Application of Noise Standards

The determination of which noise metric to apply, CNEL or Leq, should be based on the metric that produces the most restrictive condition.

The maximum noise level standards above are applicable to the property lines of uses within the following zoning districts:

- a. Single Family Zoning District: Includes any zoning district regardless of density in which single-family home ownership is encouraged. This includes planned developments and attached

dwellings. When a Single Family Zoning District or property boundary abuts a Commercial or Industrial District or property boundary, then the noise standards for the Single Family District should prevail at the property boundary.

- b. Multiple Family Zoning District: Includes any zoning district in which occupancy is largely limited to renters regardless of density. When a Multiple Family Zoning District or property boundary abuts a Commercial or Industrial Zoning District or property boundary, then the noise standard of the Multiple Family Zoning District should prevail at the property boundary.
- c. Commercial Zoning Districts: Includes all Commercial Zoning Districts (C-0, C-1, C-2, C-4 and C-5) with the exception of the "C-3" Heavy Commercial Service District, which for the purpose of this element is included in the Industrial Zoning District Noise Standards category.
- d. Industrial Zoning District: Includes all manufacturing and industrial uses within the "P-I" Planned Industrial District and the "M-2" Industrial District. Also included is the "C-3" Heavy Commercial Light Industrial District. When any industrial district abuts another zoning district with more restrictive noise standards, then the noise standards of the more restrictive district should prevail at the zoning district boundary.
- e. "U" Unclassified Districts: For areas zoned "U" Unclassified, the noise standards should be applied to the property boundary of the specific use. The noise standards to be used should be based on the General Plan land-use descriptions in which the use would be permitted.
- f. Consistency of Noise Standard with General Plan Classification: In no case should the noise standards be applied to a use or project where an inconsistency between the land-use classification of the General Plan and zoning district in which it is located is created.
- g. Peak Noise Standards: Except for peak noise or impulsive sound from within a residential area, no peak noise levels for any commercial or industrial use should spill over into a residential area which would cause the residential noise standards to be exceeded by more than 3 db for a 15-minute Leq monitoring period.

Peak noise levels from within a residential area should be established by a City Noise Ordinance.

Peak noise standards for vehicles on any public street are set forth in the California Vehicle Code and enforced by the Redding Police Department and California Highway Patrol.

- h. Motels, Hotels, and Apartments: In specific land-use projects dealing with motels, hotels and apartments, the residential interior noise standards should prevail regardless of the zoning district in which they are located.

- i. Determination of Noise Compliance with Standards: The determination of compliance with the noise standards of this section should be based on a 15-minute Leq day and night measurement assuming no unusual noise conditions exist which would tend to make such a short period of monitoring invalid in terms of not approximating an Leq for one-hour periods. Where this occurs a longer monitoring period of 1-, 8- or 24-hours may be necessary.
- j. Acoustical Analysis Requirement: New residential structures to be located within a existing or projected CNEL contour interval of 60 db or greater should require an acoustical analysis showing that the structure has been designed to limit interior intruding noise levels to the interior noise level standards discussed in Section 2-L below:
- k. Noise Contours: The determination for which areas of the City may be subject to the requirement of a noise analysis under Section B-2j., above should be based upon the noise contour interval data provided in the technical appendices of the Noise Element. If a developer chooses to disagree with the contour data of the tables then he may provide independent noise monitoring data using the same noise metric and following procedures outlined in Title 24 of the California Administrative Code.
- l. Interior Dwelling Unit Noise Standards: Exterior noise levels outside of any dwelling unit (located within a zoning district intended for such use) should not be the principal cause for the interior noise level to exceed a 15-minute Leq of 40 db in sleeping areas and for other habitable areas of the dwelling unit, the noise level should not exceed a CNEL of 45 db. In both instances. it is assumed that all windows are closed.
- m. Noise Standards For Sensitive Uses: The exterior noise levels outside of any noise sensitive land use including hospitals, rest homes, clinics, schools and libraries should not cause the interior levels to exceed an Leq of 45 db except in sleeping areas, the maximum CNEL should not exceed 40 db with all windows closed.
- n. Site Plan Review Criteria: For those areas that may be impacted with excessive noise as determined by the projected noise contours of the Element, site plan review criteria should be attached to the zoning district of the area to implement the requirement for a noise analysis and mitigations.
- o. Noise Mitigation Devices: The noise mitigation devices of the Noise Element including barrier design, building setbacks and materials in structures should be applied in planning residential developments when the units will be impacted with noise.

C. OBJECTIVE: REDDING MUNICIPAL AIRPORT NOISE POLICIES

Incorporate the following policies of the Redding Municipal Airport Area Plan into the Noise Element and develop a five-year action program to implement the policies:

1. Designate certain land developed with incompatible uses within the south Inner Approach Zone, as shown on the Area Plan, for Airport acquisition as availability of funds permits. The designation of "Acquisition" is made based on the concerns of noise impact and safety and the potential for conflict between airport operations and future users of the affected properties.
2. Designate land within the 1981-2000, 65 CNEL contour, as shown on noise contour Map Exhibits B and C on pages 31 and 32 of the Appendix for nonresidential uses in order to attain consistency with State Noise Standards which become effective in January 1986.
3. Notify owners of developed residential property within the designated Airport acquisition and industrial areas, which are within the 65 CNEL contour, of the City's willingness to purchase, subject to availability of funds, requesting first refusal purchase opportunity.

Priority: a. Residential units on Skyway Street and Fig Tree Lane sites designated to be acquired and retained as Airport property and Anderson Grange.

b. Residential units within the Inner Approach Zone.

c. Residential units within the 1981 65 CNEL contour.

d. Vacant and nonresidential property designated to be acquired and retained as airport property.

4. If the number of owners wishing to sell exceeds the funds available, a priority list should be established and should remain in force until all properties receiving priority a, b, c, or d on the initial list have been acquired or converted to a compatible use, or the request to purchase has been withdrawn.
5. Property acquired that is not designated for retention as Airport property should be resold or leased for a compatible use, subject to limitations established by the source of funds with which it was purchased.
6. Require noise agreements as a condition of use permit, subdivision, or parcel map approval within the 1981-2000, 60 CNEL contour (shown on the Airport Area Plan map) and within the Traffic Pattern Zone (shown on Figure 5 of the Airport Report). The agreements should preclude suits for damages or to enjoin Airport operations to limit noise and should run with the land.
7. Require construction of walls and/or berms (as depicted on Figure 17 on page 64 of the Appendix) adjacent to freeways and expressways in residential areas to mitigate noise impacts where CNEL noise levels will exceed prescribed State standards.

D. OBJECTIVE: BENTON AIR PARK

Study and evaluate the noise impact of air traffic of Benton Air Park on schools and residential areas to be sure that the 1976 and 1995 noise contours reflect accurate measurements for existing projected conditions.

E. OBJECTIVE: ENTERPRISE SKY PARK

Maintain the present level of airport activity for Enterprise Sky Park through land-use planning so that noise levels do not increase to the point of impacting residential areas.

1. Standard

Recognize Enterprise Sky Park as a nonconforming use on the General Plan by establishing a land-use pattern that will not conflict with the current activity of the airport and will not permit the airport to expand its air-traffic operations.

F. OBJECTIVE: SKY RANCH AIRPORT

Classify the airport property as "Industrial" or "Commercial" with a provision that aircraft activity should be limited to on-site industrial or commercial activities or reclassify the property to a residential classification and seek termination of the airport activity.

G. OBJECTIVE: RAILROAD OPERATIONS

Classify areas adjacent to railroad tracks with land-use patterns that are compatible; and where no other alternative exist, require a noise analysis and mitigation measure if needed to satisfy the following noise standards.

1. Standards:

- a. For developments within the 60 CNEL Contour or within 620 feet of the railroad tracks, require a noise analysis as stipulated under Title 24 of the California Administrative Code. The analysis should specify any necessary noise mitigations to produce an interior noise level specified for the use in the Noise Element.
- b. The noise mitigation standards presented in the Noise Element should be employed when applicable to new development projects.

H. OBJECTIVE: TRAFFIC NOISE IMPACTS

Existing and projected traffic noise impacts of highways, Interstate 5 and major four-lane streets on land use should be mitigated when possible.

1. Standards and Policies

- a. The recommended noise mitigations and standards of the Noise Element should be incorporated into noise impacted developments as determined by noise monitoring and for projects that are within the

projected 60 CNEL contour interval of all streets and highways including those listed in Tables 7 through 12 on pages 85 through 90 of the Appendix.

- b. The Noise barrier designs presented on pages 47 through 50 should be utilized based on their applicability in terms of cost, efficiency and aesthetics.
- c. The noise reduction standards for dwellings presented on pages 76 through 83 should be utilized when applicable and when recommended under State and Federal laws in Title 24 of the California Administrative Code.
- d. Encourage the police department to reestablish an on-going policy of vehicle noise abatement program through the use of noise meters and issuance of citations for faulty mufflers. Such a program should be modified so that it doesn't include trucks or cars with snow tires or mud tires. The program should also depend on the availability of police department personnel.

I. OBJECTIVE: NOISE SENSITIVE USES

Adopt a land-use and circulation pattern where feasible that will minimize impacts on noise sensitive uses such as schools, libraries, hospitals, clinics and rest homes; and develop noise mitigation recommendations for noise sensitive uses.

1. Policies

- a. Discourage the development of land-use noise generators adjacent to noise sensitive uses through the establishment of compatible zoning districts.
- b. Advise the following noise sensitive uses that they may experience much higher noise levels from projected traffic volumes on existing streets so that they can build into their long-term capital-improvement program, the cost of noise mitigation measures and assist these agencies and institutions in applying for Federal or State aid to mitigate the impacts with the recommended mitigation measure of the Noise Element.
 - Shasta High School
 - Parsons Junior High School
 - Cypress Elementary School
 - Grace Baptist School
 - Monte Vista School for the Handicap
 - Parsons Junior High School
 - Grace Baptist Elementary Sch.
 - Cypress Elementary School
 - Live Oak School
 - Enterprise High School
 - Rother Elementary School
 - Shasta Convalescent Hospital

J. POLICY: RESOLUTION OF NOISE COMPLAINTS

Adopt a noise ordinance similar to the one on pages 102 to 133 of the Appendix that will address maximum permissible peak noise levels and will permit the Police and Planning departments to deal effectively with noise complaints and budget the necessary funds to purchase one additional noise meter for the Police Department and two noise level graphic recorders, one for each department.

K. POLICY: NOISE IMPACTED DEVELOPED AREAS

In those urbanized noise-impacted areas that are considered to be blighted in terms of the State and Federal redevelopment criteria, the City could include such areas as part of a redevelopment project. This policy may permit the construction of earth berms or sound walls within the right of way of Caltrans when there is insufficient privately owned land.

L. POLICY: INDUSTRIAL NOISE COMPLAINTS

In general, it is the City's policy that "the developer of industrial uses must build noise mitigations into his project based on the anticipated noise levels to be generated." In the past, the City has received noise complaints from newly-developed residential areas near established industrial areas and many times residents insist that the City impose additional noise requirements on the operator of the existing industrial use. In an effort to protect their investment, industrial operators and developers argue that they were there first and at the time they developed they met all City requirements.

To clarify the City's policy and to offer staff guidance in dealing with industrial noise complaints, it is the City's policy that residential development projects, newly developed residential areas, and noise sensitive projects should be responsible for noise mitigations to lessen the noise impact from nearby existing industrial uses and urban activities when the following conditions exist:

- A. At the time of development, the industrial use complied with all the noise mitigations based on anticipated noise sources and noise levels.
- B. The noise level as measured at the residential property line exceeds the residential noise standards due to the cumulative effect of nearby existing industrial and new industrial noise sources and increased noise levels of urban activities (i.e., traffic, trains, aircraft, etc.).
- C. The industrial use emitting the noise conforms with the land-use classification of the general plan, zoning district, and all conditions of City permits.
- D. The industrial use has not added additional noise-producing equipment or substantially changed its hours of operation from what has been approved by the City.

IV. RECOMMENDED ACTIONS THE CITY SHOULD TAKE

The following are a list of specific actions for the City to accomplish within five years after adoption of the Element:

1. Initiate the inclusion of site-plan-review criteria of the Noise Element into zone change requests for those areas that are projected to be impacted by noise.
2. Adopt a noise ordinance within one year of the adoption of the Noise Element, which includes maximum peak noise level requirements.
3. Set aside funds to purchase an integrated noise level meter for the Police Department and two noise level graphic recorders (one for the Planning Department and one for the Police Department).
4. Develop City ordinances guidelines for the Police Department so they can once again use noise meters in the issuance of vehicle noise violations.
5. Provide property owners with a list of consultants and designers who have the noise equipment and expertise to fulfill the requirements of the Noise Element.
6. Where appropriate include the standards and mitigation devices in development projects which require discretionary City approval.
7. Do not encourage Enterprise Sky Park to expand beyond a "basic utility one" airport or increase the number of aircraft based at the Airports.
8. As FAA funds become available, acquire the noise-impacted properties recommended by the Redding Municipal Airport Area Plan.
9. Designate a member of City staff to work with property owners and consultants in meeting the requirements of the Noise Element.
10. Set aside funds or apply for F.A.A. funding to evaluate the noise impact of Benton Airport on nearby schools and residential areas.

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